

NutriValent™ Series

Organic Acid-Based Complexing Agents

Locally and sustainably produced to help maximize plant nutrition.

The NutriValent™ series are bio- and organic acid-based complexing agents used for transporting nutrients through foliar applications to help maximize plant nutrition. This series can be used as a more economical, environmentally favorable, and easy to use solution versus other traditional chelating or complexing agents, including but not limited to glucoheptonate, EDTA, HEDTA, and citric acid.

Product Attributes

- Enables more efficient nutrient delivery
- Locally manufactured using Solugen's unique and proprietary chemienzymatic process
- Climate pledge friendly – provides a more favorable greenhouse gas (GHG) emission profile
- Enables lower treatment costs vs. incumbent chemistries
- Biodegradable, NTA- and Cyanide-free

Typical Nutrient Content

Nutrient	%
Fe	5%
Zn	5%
Mg	3%
Ca	10%
Mn	5%
Cu	4%

Product Specifications***

Specification	NutriValent™ Series			
	T15*	G16*	T25**	G25**
Product Form	Liquid	Liquid	Liquid	Liquid
Color	Colorless to dark amber	Colorless to dark amber	Yellow to dark amber	Yellow to dark amber
Water Solubility	Soluble	Soluble	Soluble	Soluble
pH	<2.0	3 – 4	<2.0	2 – 3
SG, 25°C	1.21 – 1.27	1.30 – 1.40	1.16 – 1.30	1.16 – 1.30

*NutriValent™ T15 and G16 are single-component products.

**NutriValent™ T25 and G25 are specially formulated blends of T15 and G16, respectively, to enhance performance.

***Please refer to the latest SDS and COA for the most up-to-date product information.



NutriValent™ Enables High Fe and Zn Content

NutriValent™ G25 Complex with Fe

Complexing Agent: NutriValent™ G25
 Iron Source: Ferric Sulfate (CAS 10028-22-5)
 Buffering Agent: Sodium hydroxide, 50%

Physical Properties

- Fe content: 6%
- Specific gravity, 20°C: 1.5 – 1.6
- pH, 100%: <1
- pH, 10% aq. soln.: 1.27

Mix Procedure

- At room temperature, add the below ingredients into a beaker with stirrer:
 - 15g NutriValent™ G25
 - 15g Ferric sulfate salt
- Place the beaker on a stir plate. Once mixing starts, the solution will form a slurry.
- Add 5.7g of 50% Caustic slowly while mixing and let stir for 5-10 min. until the solution turns into a dark and clear, stable solution.

NutriValent™ T25 Complex with Zn

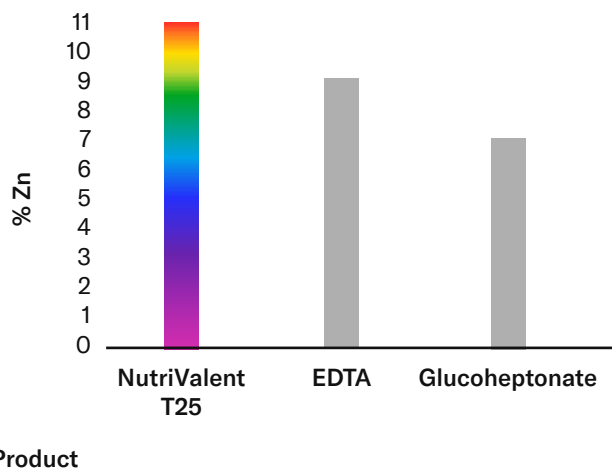
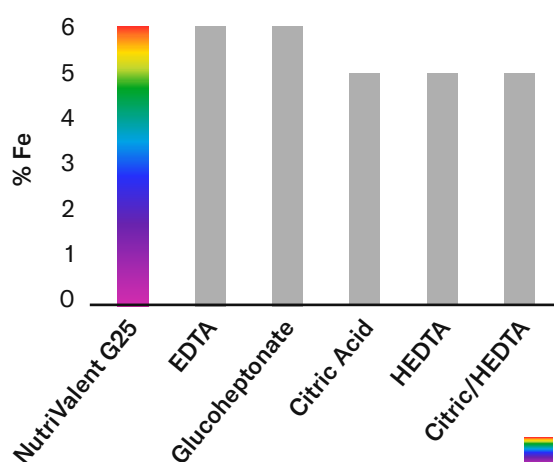
Complexing Agent: NutriValent™ T25
 Zinc Source: Zinc Oxide (CAS 1314-13-2)
 Buffering Agent: Aqua Ammonia, 30%

Physical Properties

- Zn content: 11%
- Specific gravity, 20°C: 1.3
- pH, 100%: 11.3
- pH, 10% aq. soln.: 10.5

Mix Procedure

- At room temperature, add the below ingredients into a beaker with stirrer:
 - 44.6g NutriValent™ T25
 - 12.6g Zinc Oxide salt
- Place the beaker on a stir plate. Once mixing starts, the solution will form a slurry.
- Add 33.4g Aqua Ammonia, 30% slowly while mixing and let stir for 5-10 min. until the solution turns into a clear, stable solution.



About Solugen

Solugen is a bio-based specialty chemicals manufacturer and supplier whose mission is to decarbonize the chemical industry by revolutionizing the way chemicals are made for use across a variety of markets and applications.